

FORMER NEBRASKA ORDNANCE PLANT

RESTORATION ADVISORY BOARD

January 25, 2007

Former Nebraska Ordnance Plant Restoration Advisory Board Meeting January 25, 2007

Introductions & Administrative Items	7:00-7:10
Agenda Review	7:10-7:15
Activities Since Last RAB Meeting	7:15-7:30
Groundwater Monitoring Program	7:30-8:00
Five Year Review Process	8:00-8:15
Operable Unit 3 Activities	8:15-8:45
Next RAB Meeting, Final Remarks	8:45-9:00

Introductions

- **Community Co-Chair – Melissa Konecky**
- **Army Co-Chair – Garth Anderson**
- **Restoration Advisory Board (RAB)
Members**

Introductions – Community RAB Members

ACTIVE MEMBERS

Melissa Konecky (RAB Co-Chair)

John Wageman

Paul Randazzo

Introductions – Agency RAB Members

Lincoln Department of Water Resources

Lincoln Water System

Lower Platte North Natural Resource District, Larry Angle

Nebraska Department of Environmental Quality

Nebraska Health and Human Services System

Nebraska National Guard

Saunders County

University of Nebraska – Lincoln, Agricultural Research and Development Center

University of Nebraska – Lincoln, Environmental Health and Safety

University of Nebraska, Office of General Counsel

US Army Corps of Engineers, Garth Anderson (RAB Co-Chair)

US Army Reserve

US Environmental Protection Agency, Region 7, Scott Marquess

Administrative Items

Meeting Guidelines

- RAB and Public participation**
- Honor time limits (Start on Time/End on Time)**
- Stick to the agenda**
- One question at a time**
- Respect others**
- No personal attacks**
- Ensure equal participation**

Administrative Items

Meetings are being recorded

- Cameras are being used to videotape this meeting**
- Transcriptionist is present to record this meeting**
- When you ask a question – state your name loudly and clearly for the transcriptionist to hear you**
- One question at a time**

Administrative Items

Mead Project Mailing List

- In order to better share information with the community, we update our mailing list**
- If you would like to receive site information from us, please use include your name and address on the sign in sheet**
- This information will not be shared with anyone and will only be used to mail information to you**

Administrative Items

Mead Project Web Site

- <http://www.nwk.usace.army.mil/projects/mead/projectindex.html>**
- Email list. By request, we will send email notifications when new information is posted on the web site. Please include on sign in sheet**

AGENDA

Activities Since Last RAB Meeting

Groundwater Monitoring Program

Five Year Review Process

Operable Unit 3 Activities

Next RAB Meeting, Final Remarks

Status Update

Activities Since last RAB Meeting

- 1. Groundwater and surface water sampling**
- 2. Installation of expanded monitoring network**
- 3. Continued one-year evaluation of Load Line 1 extraction and treatment**
- 4. Approval of Containment Evaluation Work Plan**
- 5. Development of construction work plans for Advanced Oxidation Process pre-treatment system for EW-11 (Safety Fact Sheet)**
- 6. Calibration of GW Model using data from November 2006 GW level collection**
- 7. MUD oversight assistance to Omaha Dist**

Planned Activities

- Complete GW Model calibration
- Install last few monitoring wells
- Quarterly sampling – March 07
- Begin construction of EW-11 Advanced Oxidation Process system – March 07
- Update Community Relations Plan
- Conduct Five Year Review
- OU3
 - Ordnance & Explosives Recurring Review
 - Antimony soil removal action

GROUNDWATER MONITORING PROGRAM

**Detailed results in September 2006 Data
Summary Report**

**(Handout or on web site:
[http://www.nwk.usace.army.mil/projects/mead
/RAB_Information.html](http://www.nwk.usace.army.mil/projects/mead/RAB_Information.html))**

Status Update - GMP

Dec 2006 GMP

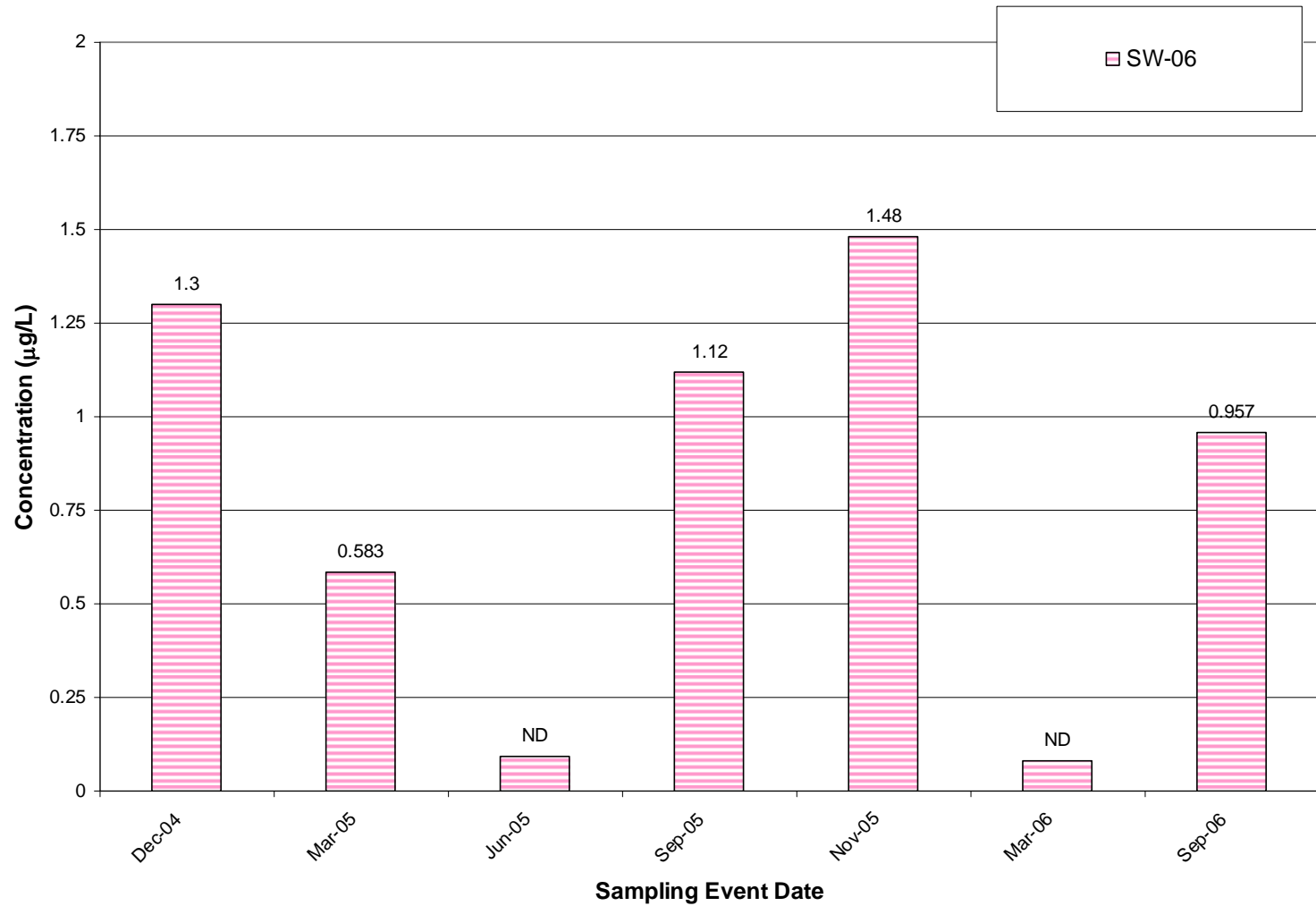
- **Sampling Completed Dec 17, 2006**
- **24 Monitoring Wells (MWs) sampled**
- **8 Residential Water Supply Wells (WSWs) sampled**
- **13 Surface Water Locations sampled**
- **Data Results Letters & Quarterly Data Report anticipated to be finalized in early Mar 2007**

Status Update - GMP

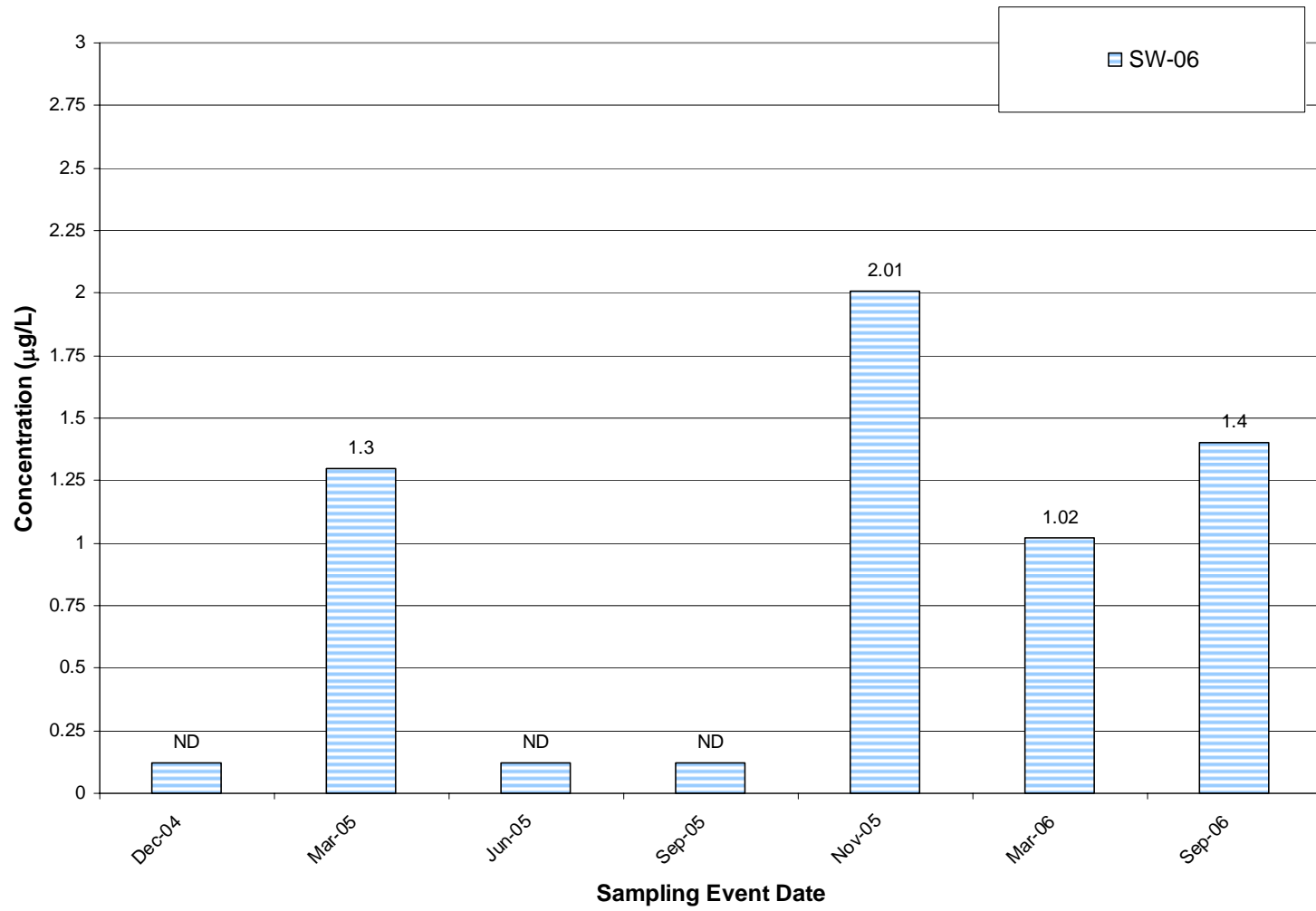
September 2006 GMP

- **Data Summary Report posted on project website**
- **Trends of surface water and monitoring well detections at select locations are included in this presentation.**
- **Key containment MWs at non-detect for TCE/RDX: MWs 10, 20, 82**

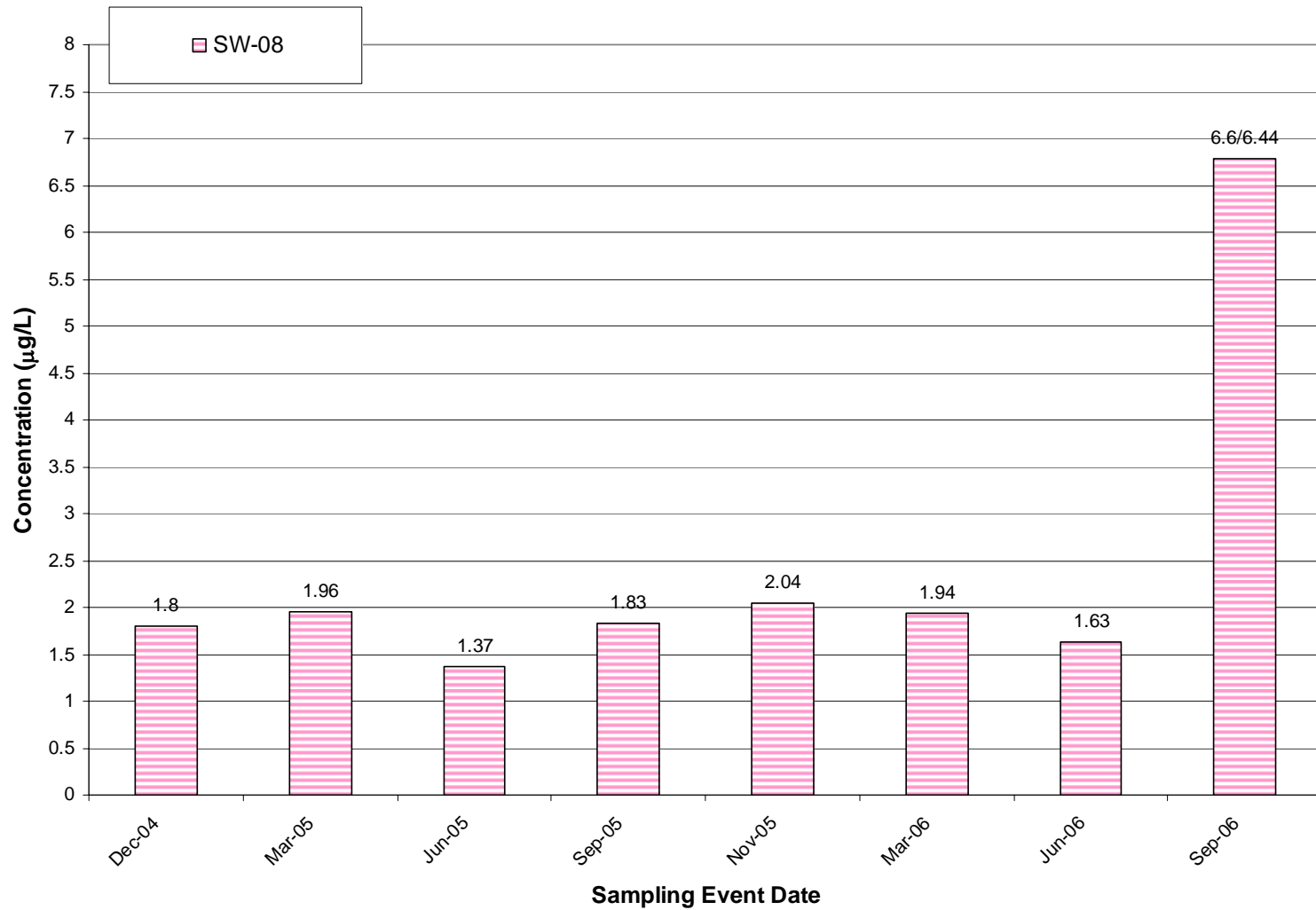
Historical Detections of RDX for Surface Water Location SW-06



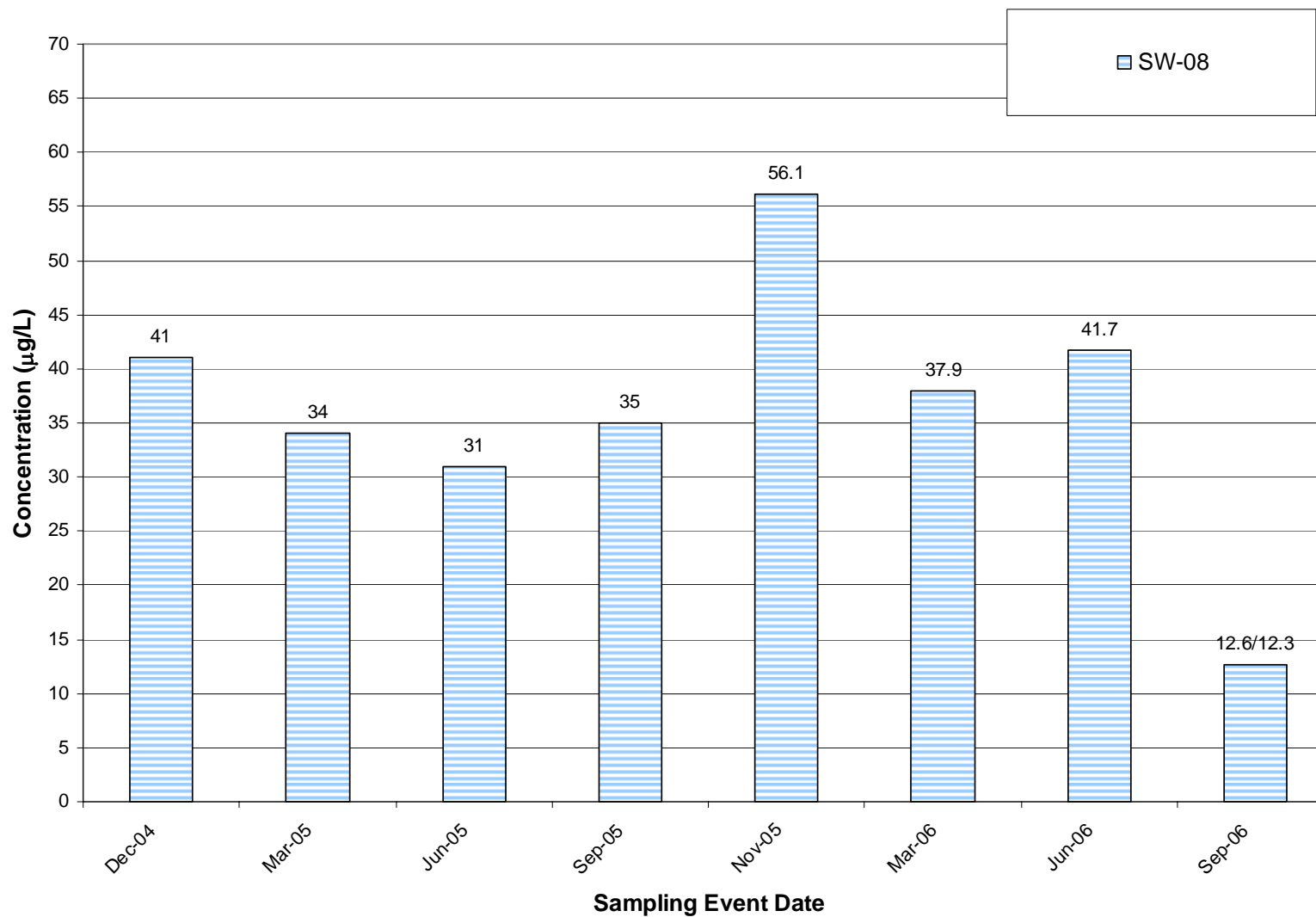
Historical Detections of TCE for Surface Water Location SW-06



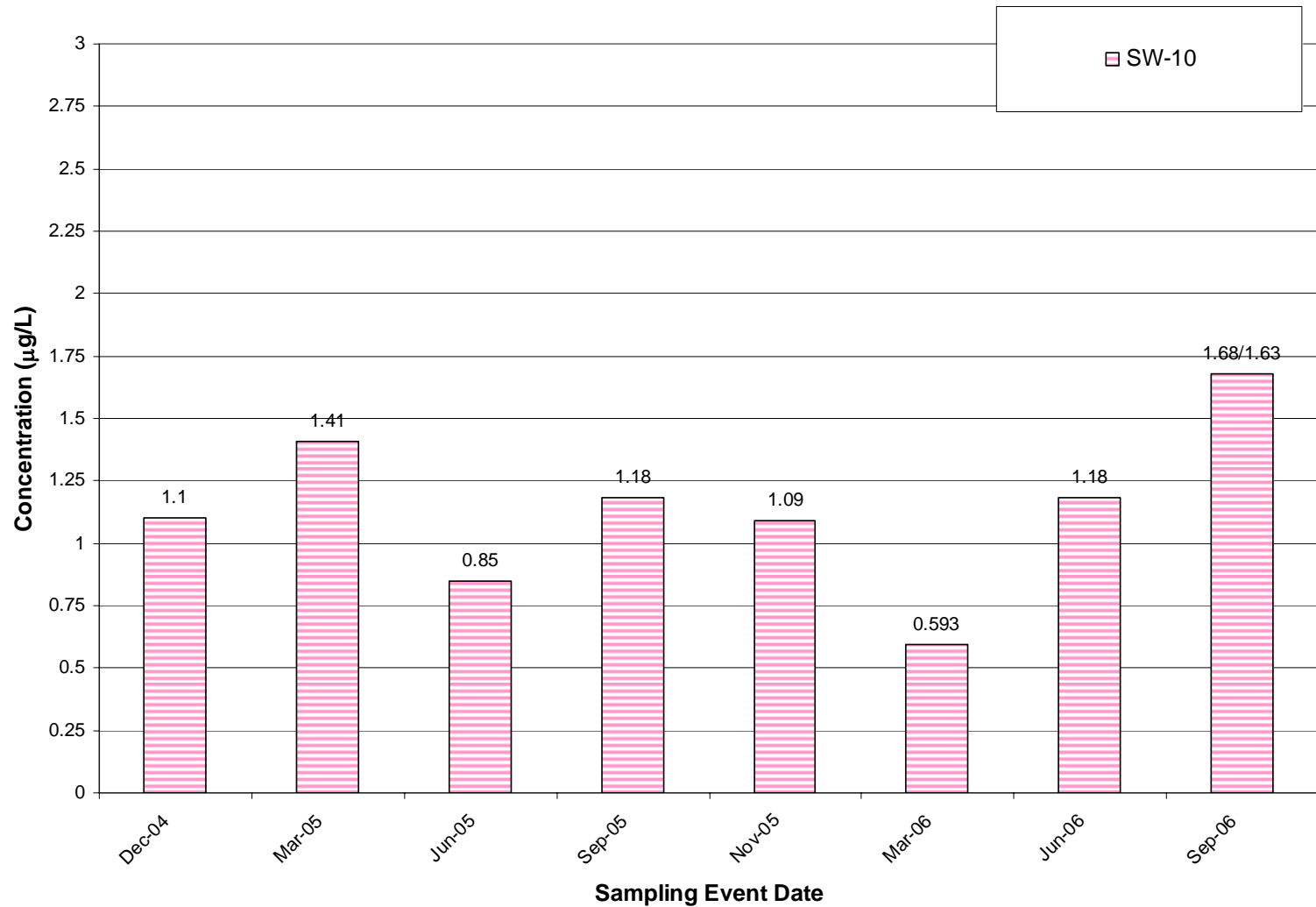
Historical Detections of RDX for Surface Water Location SW-08



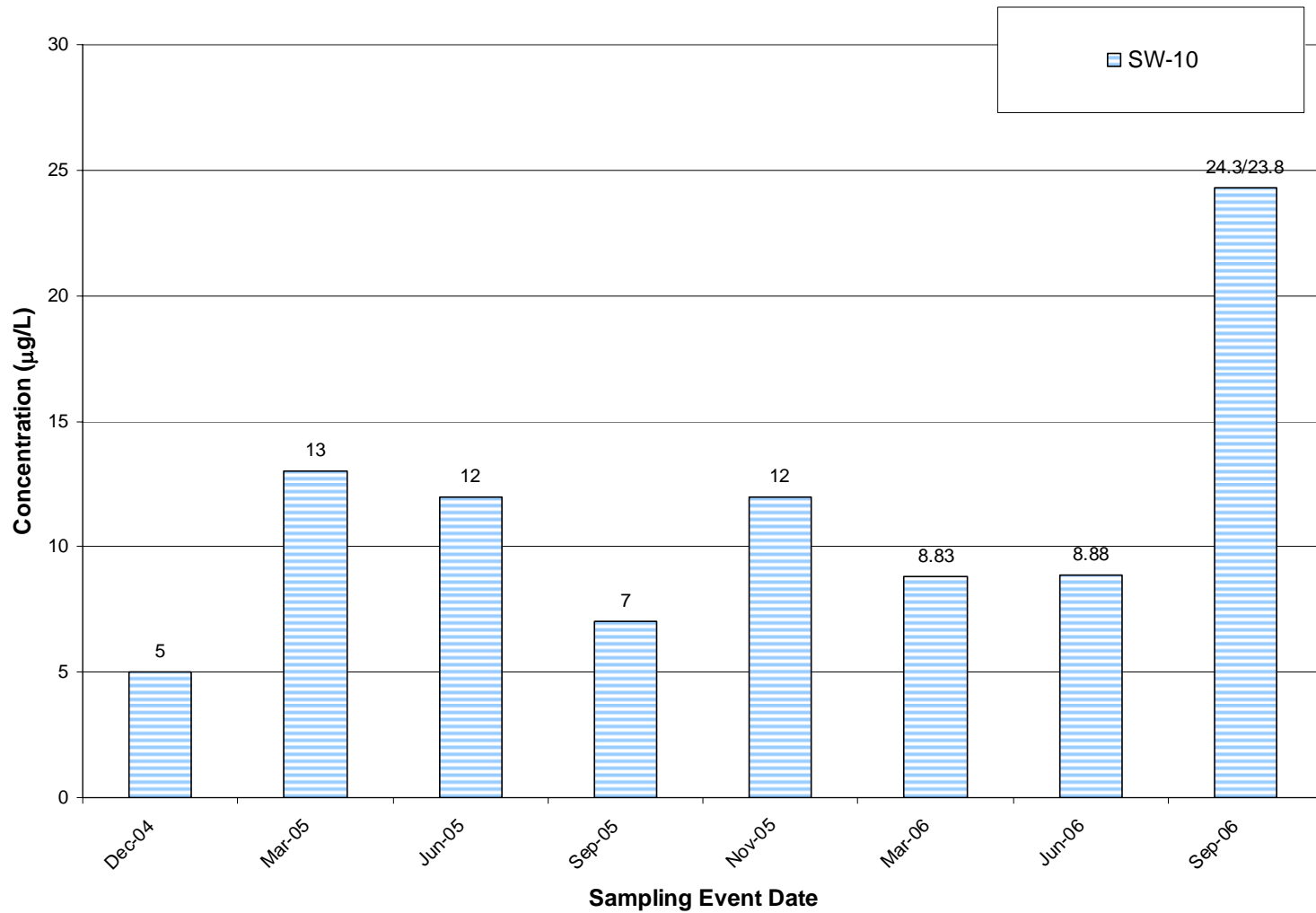
Historical Detections of TCE for Surface Water Location SW-08



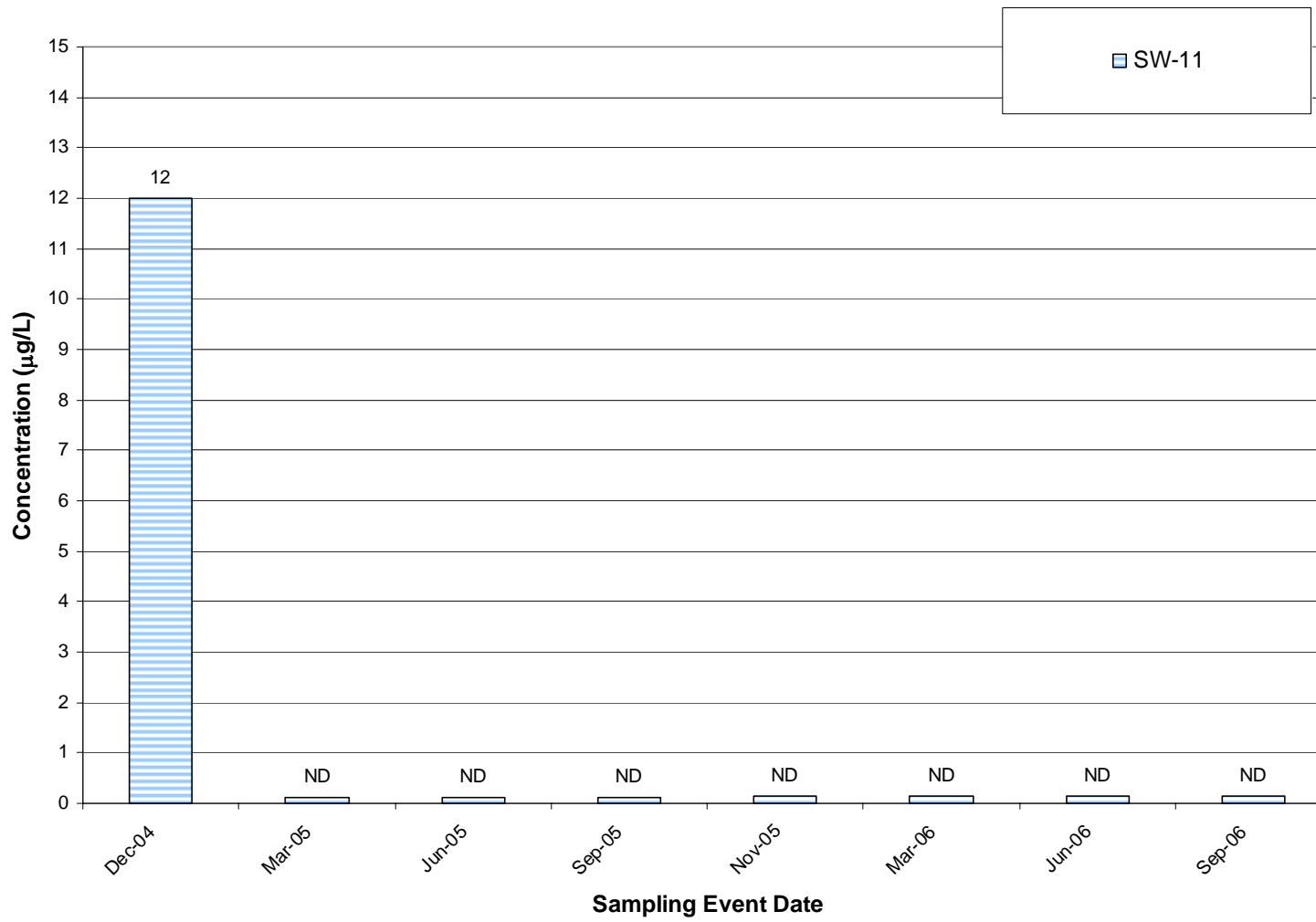
Historical Detections of RDX for Surface Water Location SW-10



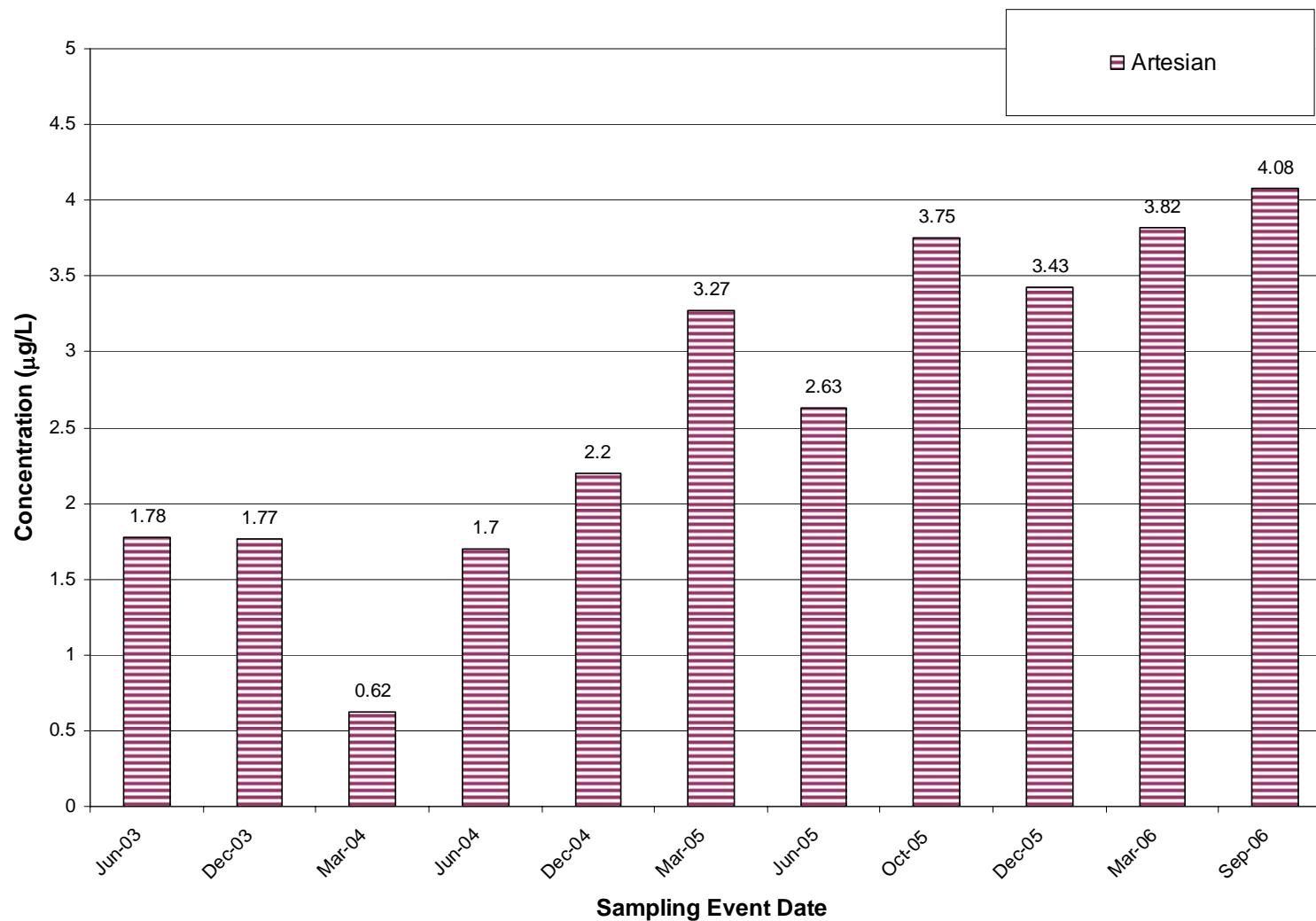
Historical Detections of TCE for Surface Water Location SW-10



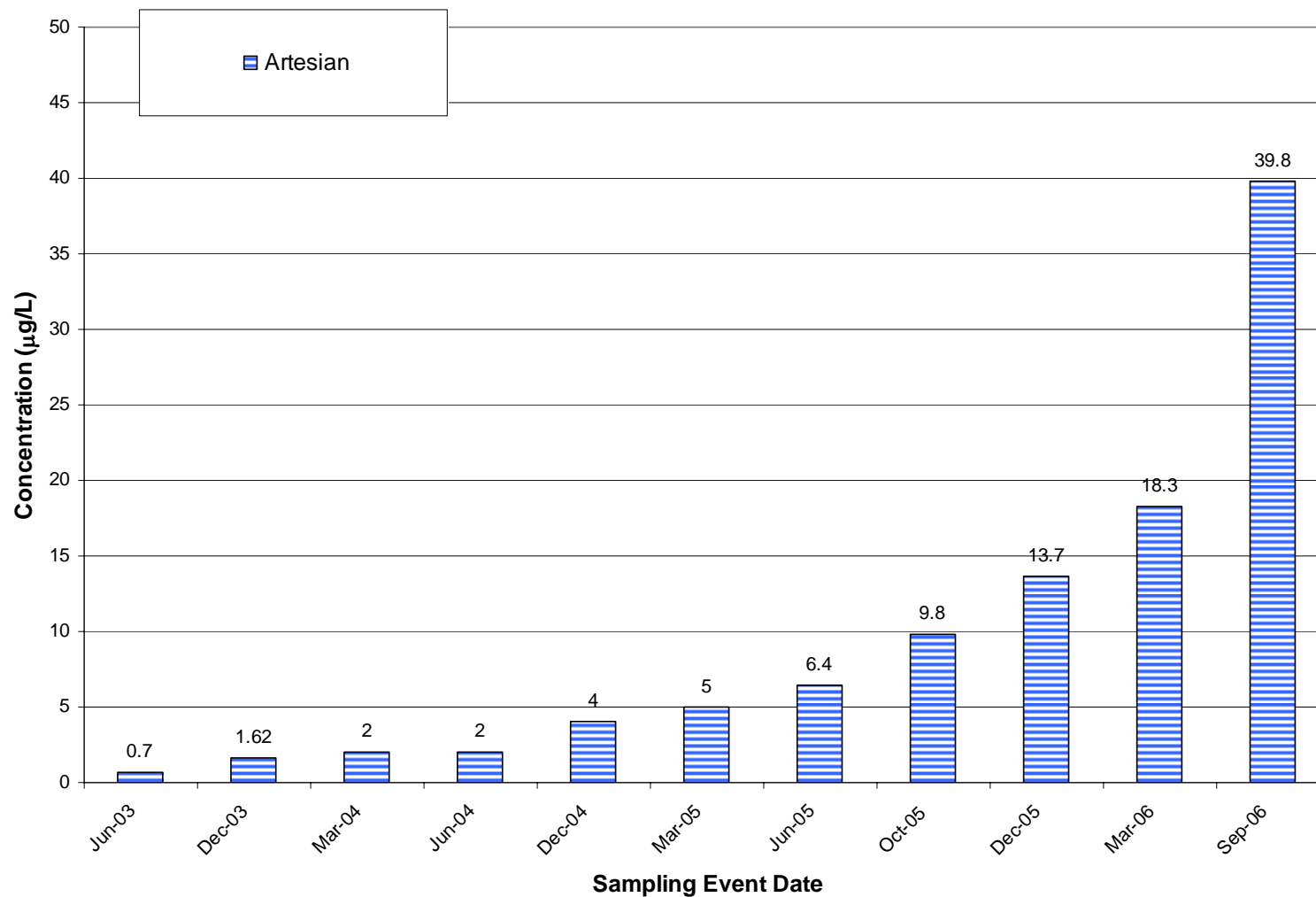
Historical Detections of TCE for Surface Water Location SW-11



Historical Detections of RDX for Surface Water Location Artesian

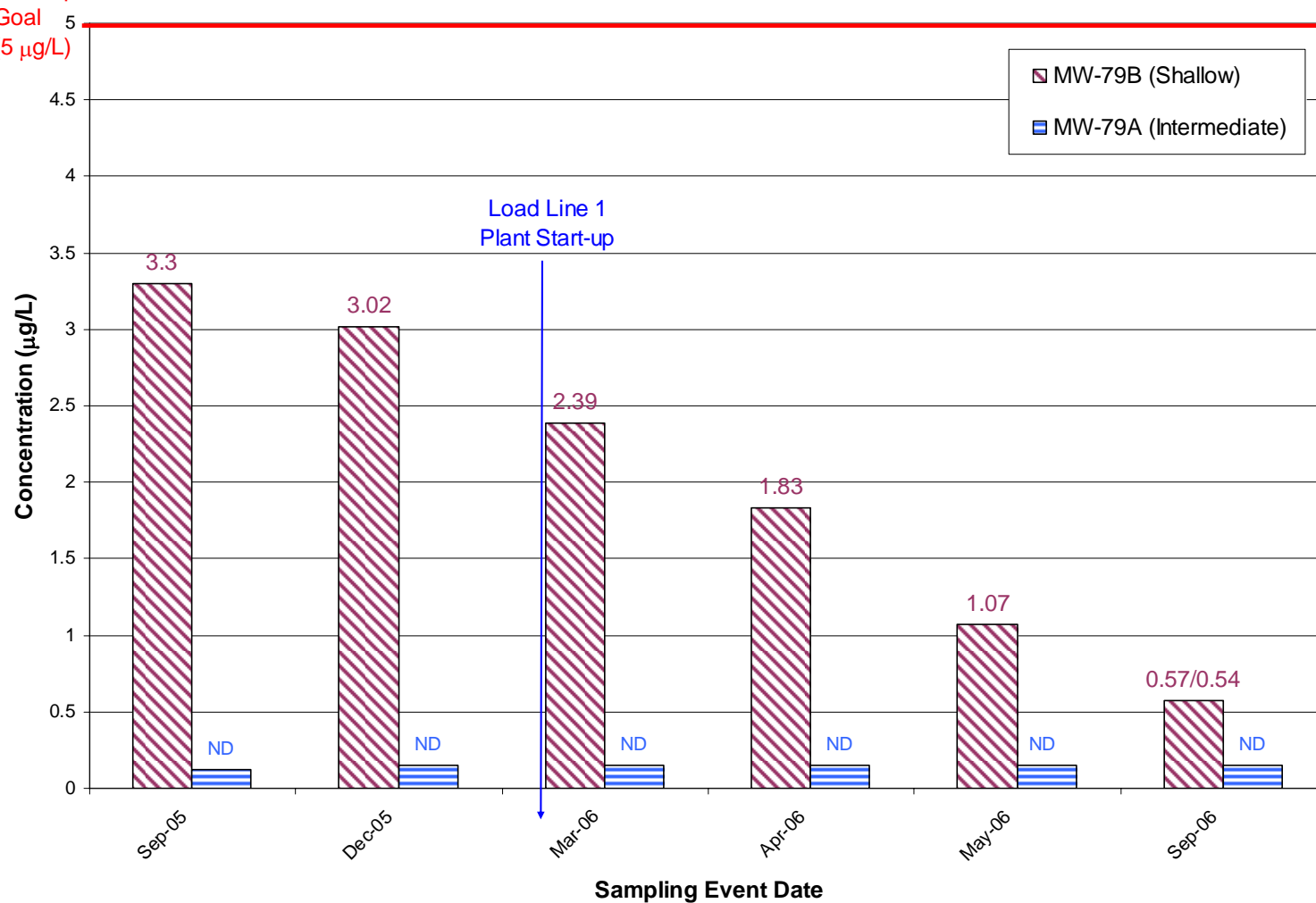


Historical Detections of TCE for Surface Water Location Artesian

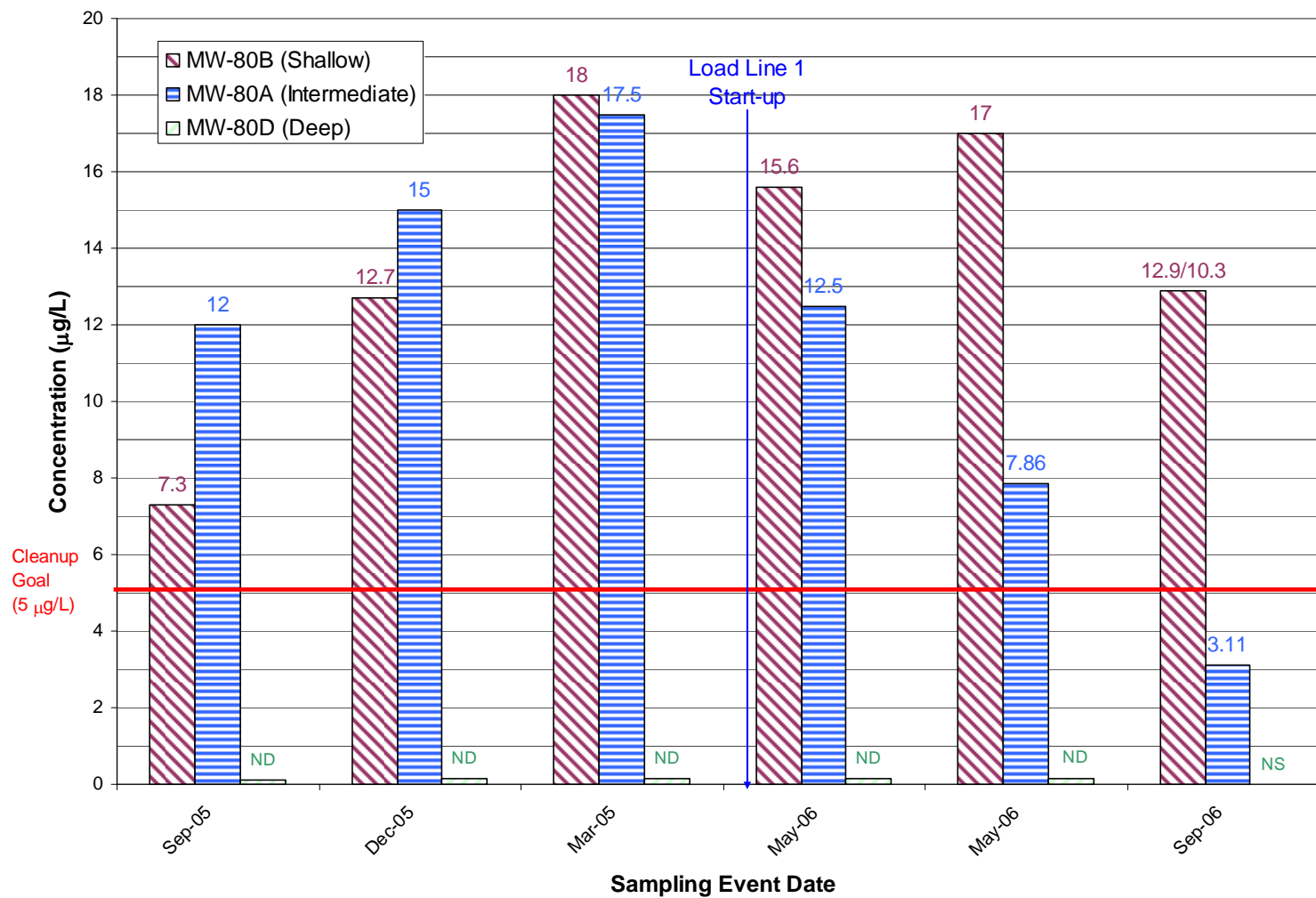


Cleanup
Goal
(5 µg/L)

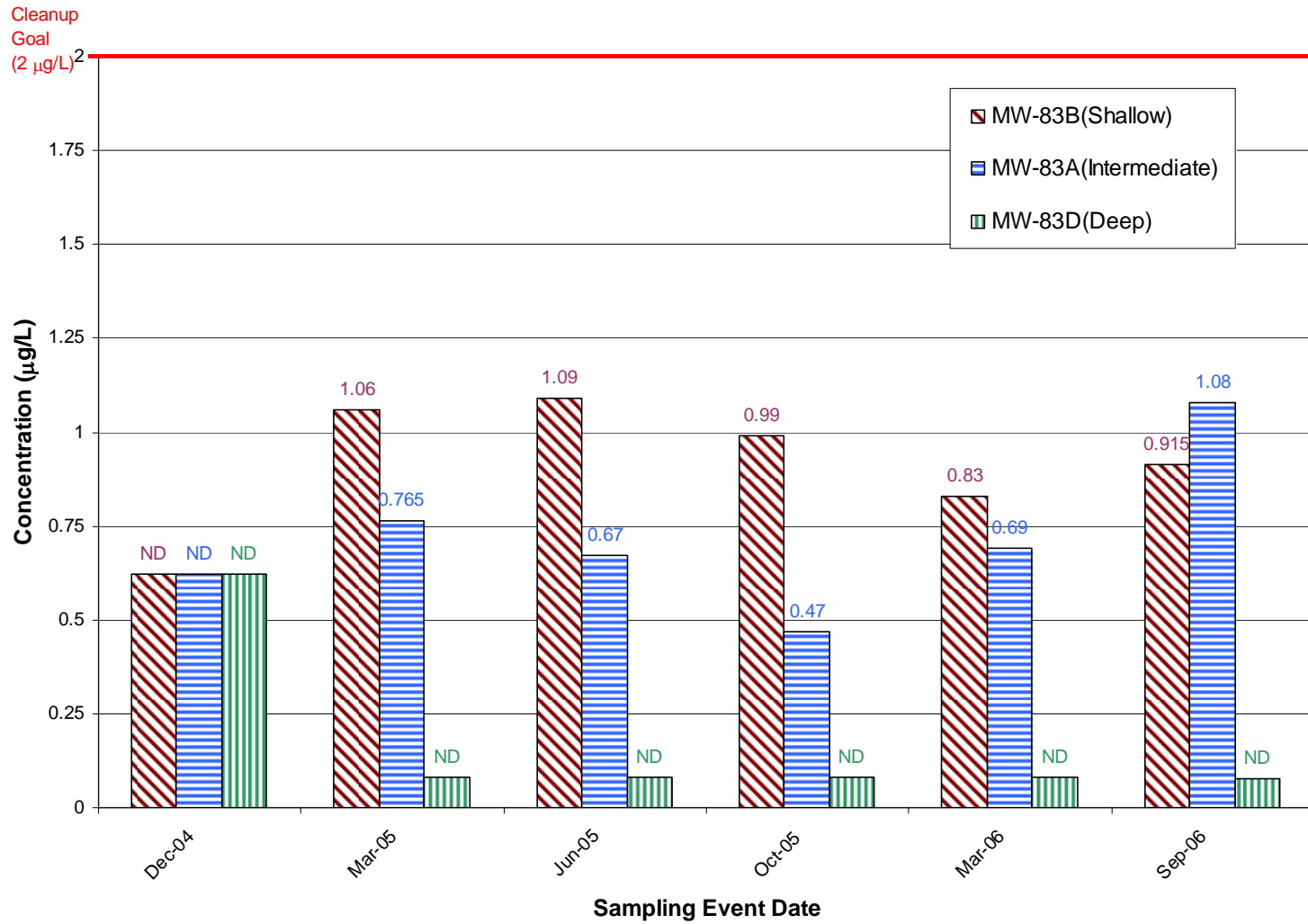
Historical Detections of TCE for Monitoring Well Cluster 79



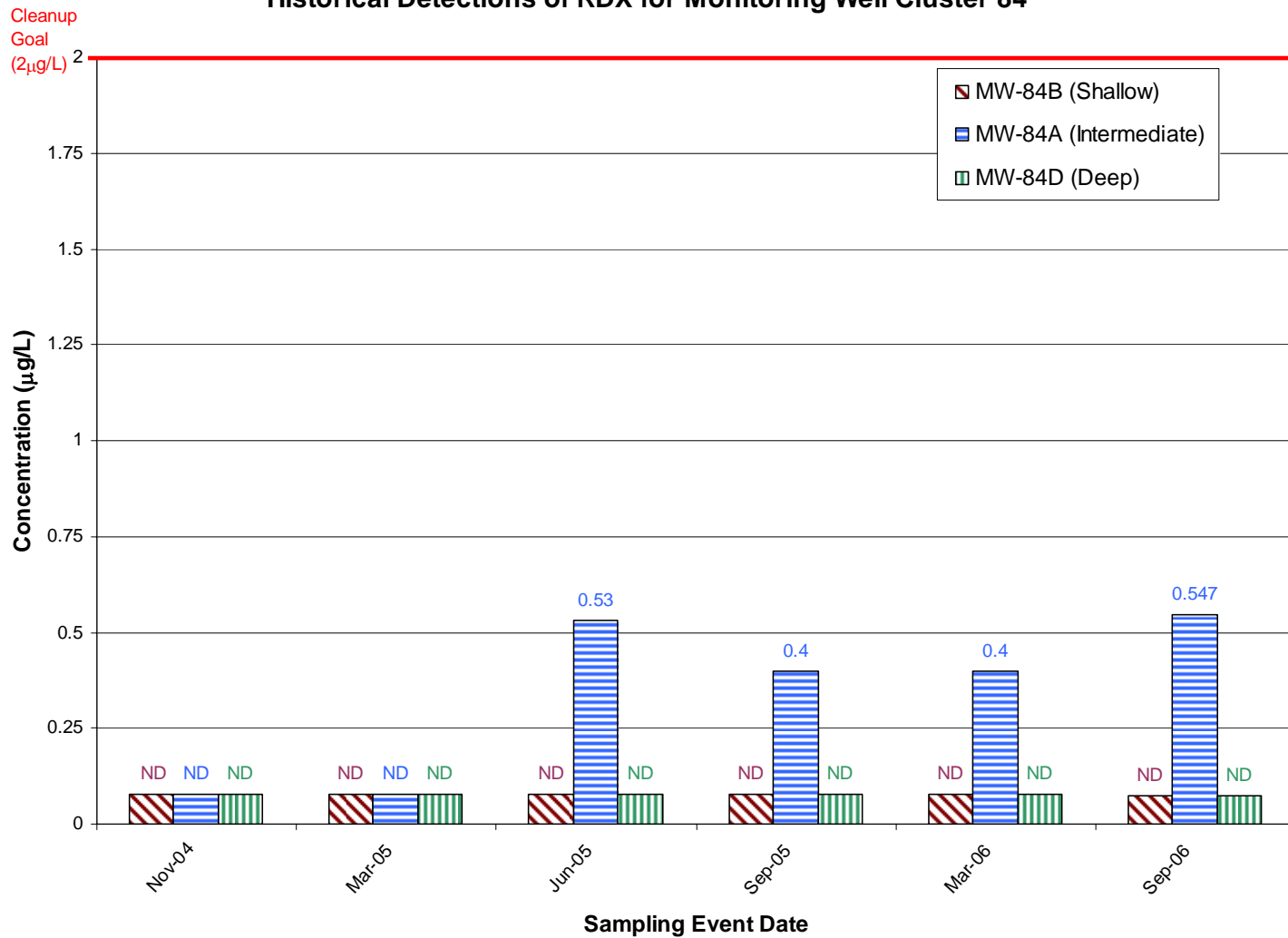
Historical Detections of TCE for Monitoring Well Cluster 80



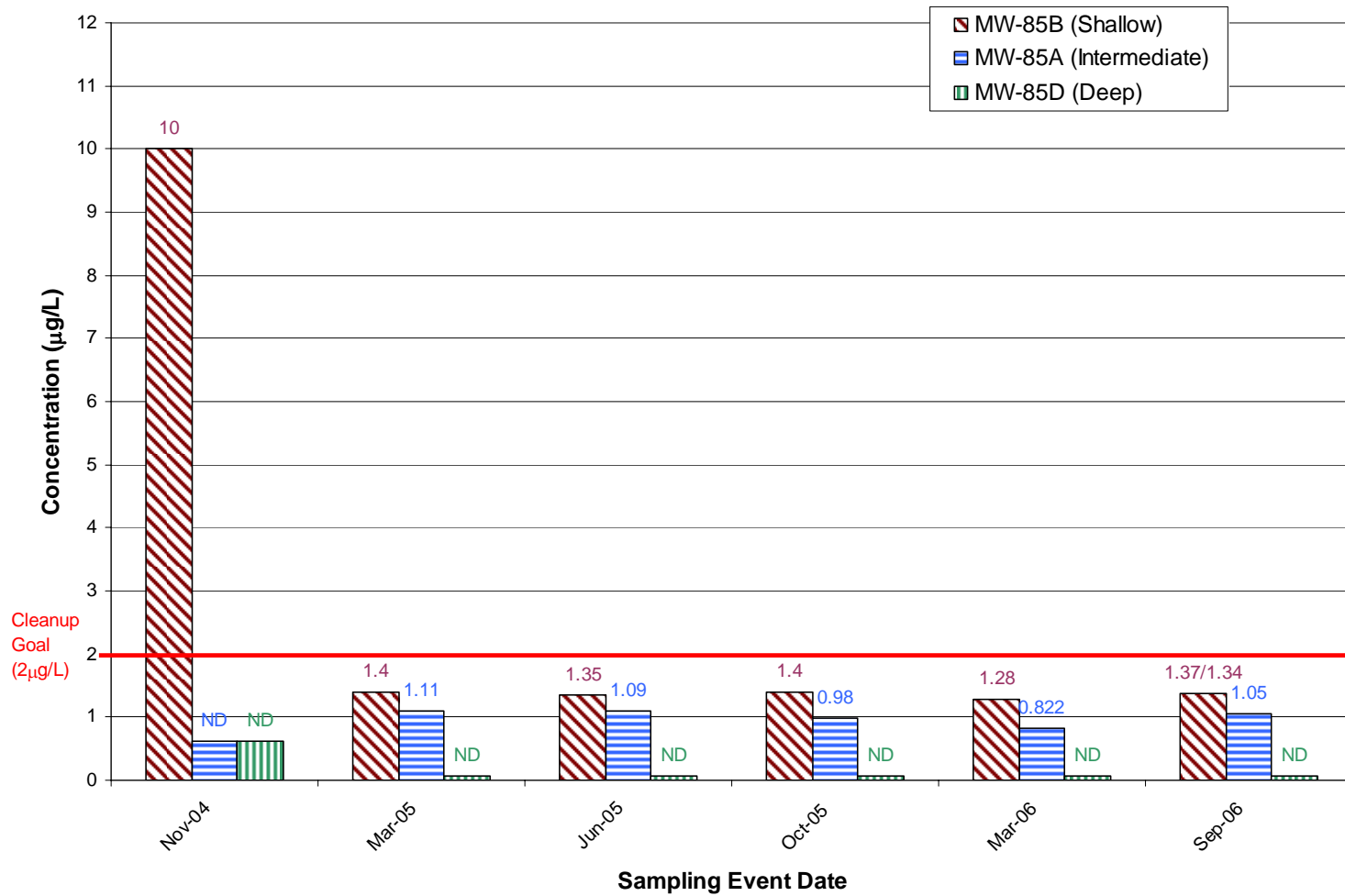
Historical Detections of RDX for Monitoring Well Cluster 83



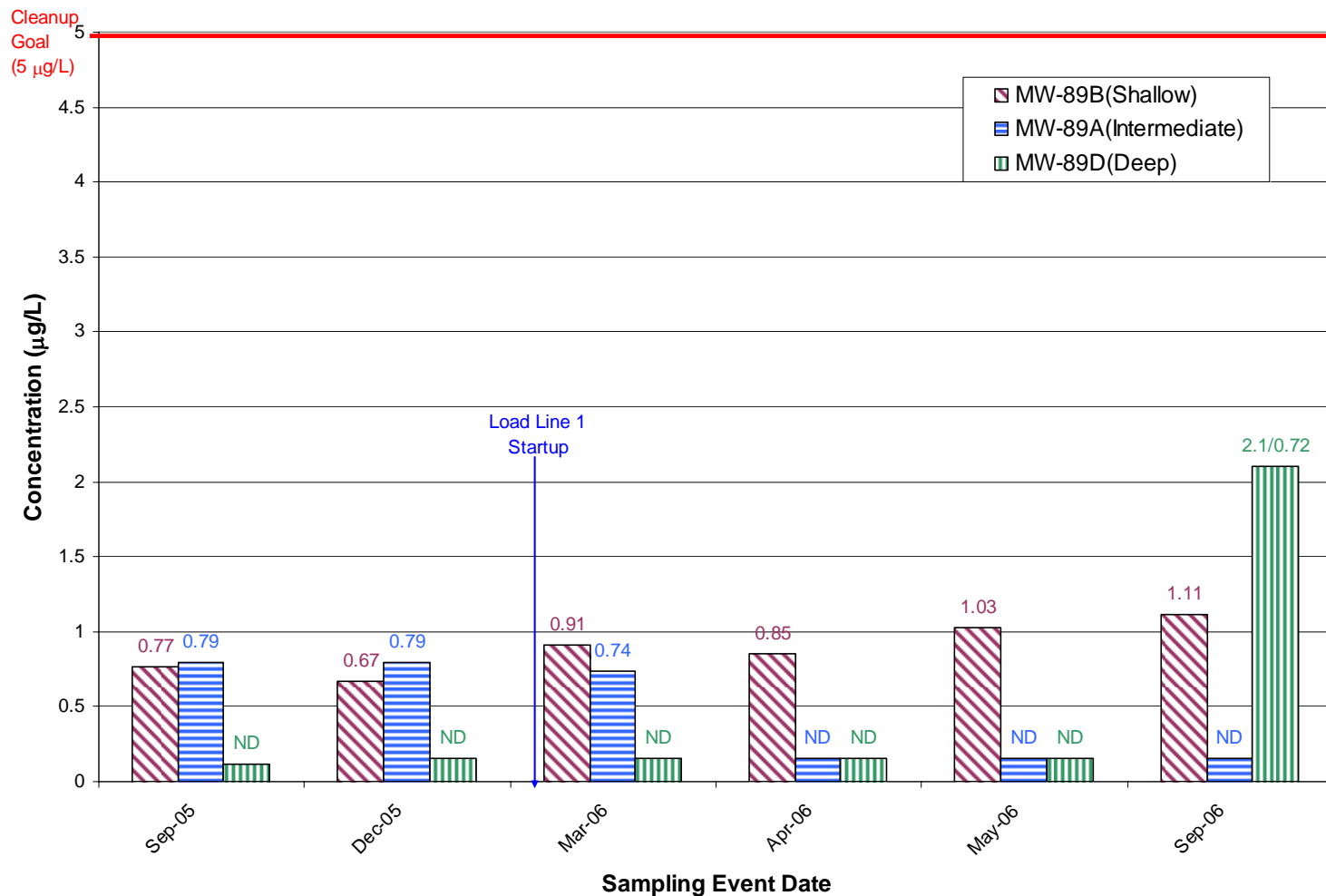
Historical Detections of RDX for Monitoring Well Cluster 84



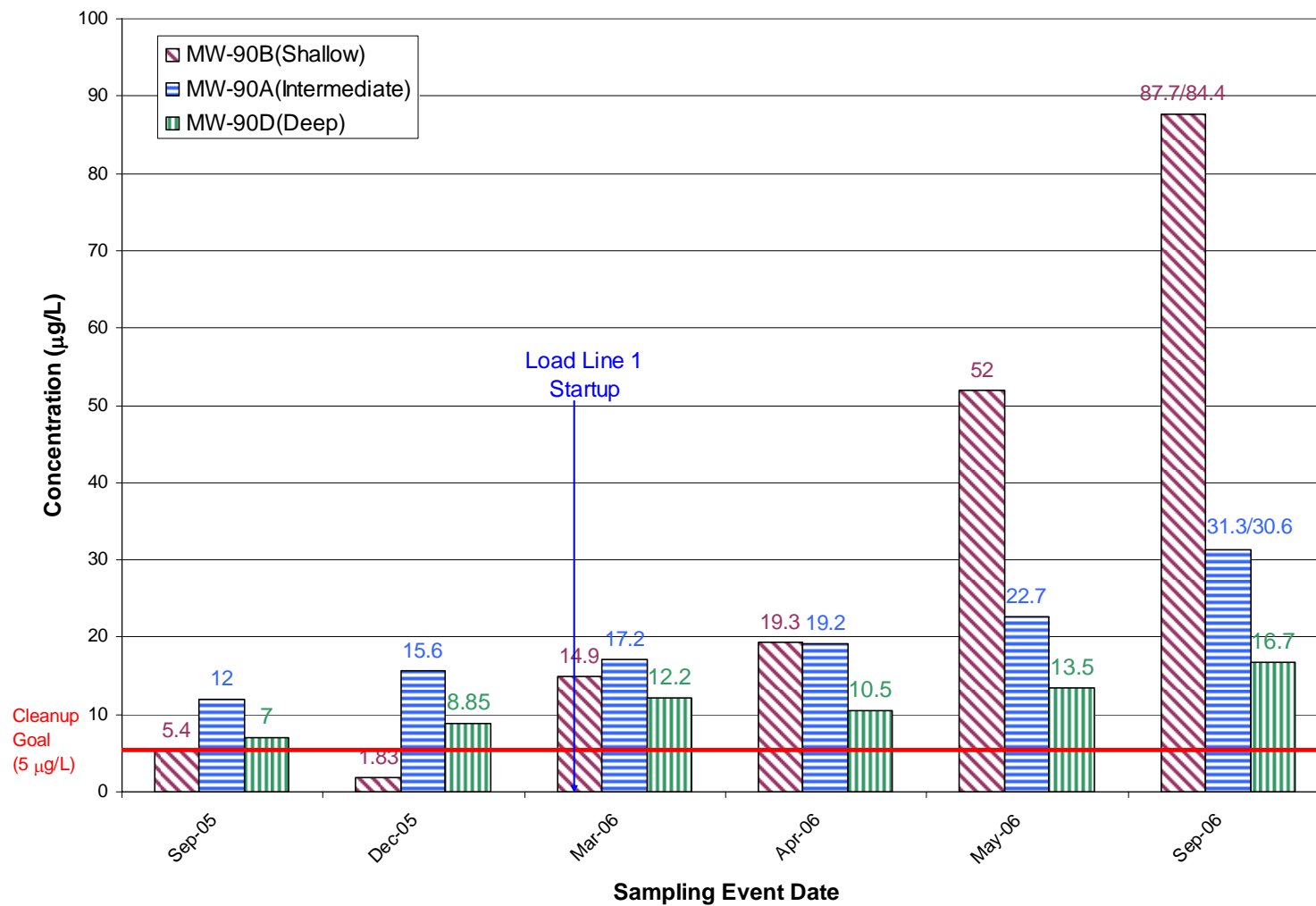
Historical Detections of RDX for Monitoring Well Cluster 85



Historical Detections of TCE for Monitoring Well Cluster 89



Historical Detections of TCE for Monitoring Well Cluster 90



Status Update

GMP Documents submitted since last RAB meeting

- **September 2006 Quarterly Data Summary Report (Jan 2007)**
- **September 2006 WSW, MW, & SW Quality Control Summary Reports**
- **Draft 2007 GMP Plan (under review by EPA/NDEQ)**

EXPANDED MONITORING NETWORK

**See Wall Map or Handout,
and Map in Back**

Expanded Well Network

- **New wells installed:**
 - **Observation Wells (OWs)**
 - **Southern Perimeter Monitoring Wells (MWs)**
 - **Eastern Perimeter Monitoring Wells (MWs)**
 - **New MWs baseline sampling JAN 23-31 2007**

Expanded Well Network

- **Observation Wells:**
 - 30 new OWs planned, 25 installed
 - Measure performance of extraction wells
 - 59 OWs already in place at site
 - New OWs installed around EWs not previously instrumented with OWs
 - Most new OWs on University property

Expanded Well Network

- **Southern Perimeter Monitoring Wells:**
 - 36 new MWs planned, 35 installed
 - Monitor plume containment in southerly direction
 - 35 MWs already in place along southern perimeter
 - Quarterly sampling for first year on new MWs

Expanded Well Network

- **Eastern Perimeter Monitoring Wells:**
 - 48 new MWs planned, 35 installed
 - Monitor plume containment in easterly direction
 - 30 MWs already in place along Eastern perimeter
 - Quarterly sampling for first year on new MWs

Upcoming Work

- **Remaining monitoring wells to be installed:**
 - **Several well clusters were not installed in 2006 due to property access or technical issues.**
 - **Resolution in progress**
 - **Once resolution reached, USACE will re-mobilize and install remaining wells.**

Five-Year Review

- **Purpose:** Required periodic review of remedy to ensure it remains protective of human health and environment
- **Period of Review:** Feb-02 to Feb-07
- **Technical Assessment**
 - Is remedy functioning as intended?
 - Are exposure assumptions and cleanup levels still valid?
 - Is there new information that call into question the protectiveness of the remedy? (land use, ownership, etc)

Community Relations Plan (CRP) Update

- **Purpose of a CRP is to outline the community relations activities that will be conducted during the clean up process**
- **Current plan dated 1997**
- **USACE will conduct interviews and collect questionnaires to determine how information is getting out and how we can improve**

Operable Unit 3

- **Non Time Critical Removal Action**
- **Ordnance and Explosives (OE)
Recurring Review**

OU3 Removal Action

- **OU3 is last operable unit – site wide. Areas not otherwise covered by OU1 & OU2.**
- **OU3 Remedial Investigation/Feasibility Study approved in 2000**
- **Identified contamination related to painting operations**
- **Removal of approximately 1,000 cu yd of antimony contaminated soil**
- **Excavation and disposal in approved off-site landfill**

Removal Action Process

- **Intended to “remove risk”**
- **Removal action can take place at any time during the overall cleanup process**
- **Engineering Evaluation/Cost Analysis (EE/CA)**
 - **Identifies, analyzes, recommends cleanup alternative**
 - **OU3 approved Feasibility Study (FS) serves as EE/CA**

Removal Action Process

- **Public Participation**
 - **Public Notice**
 - **30 Day Public Comment Period.**
 - **EE/CA (FS) to be available at Mead Library, on project web site, CD.**
 - **Address public comments**
- **Action Memorandum – formalizes cleanup decision**

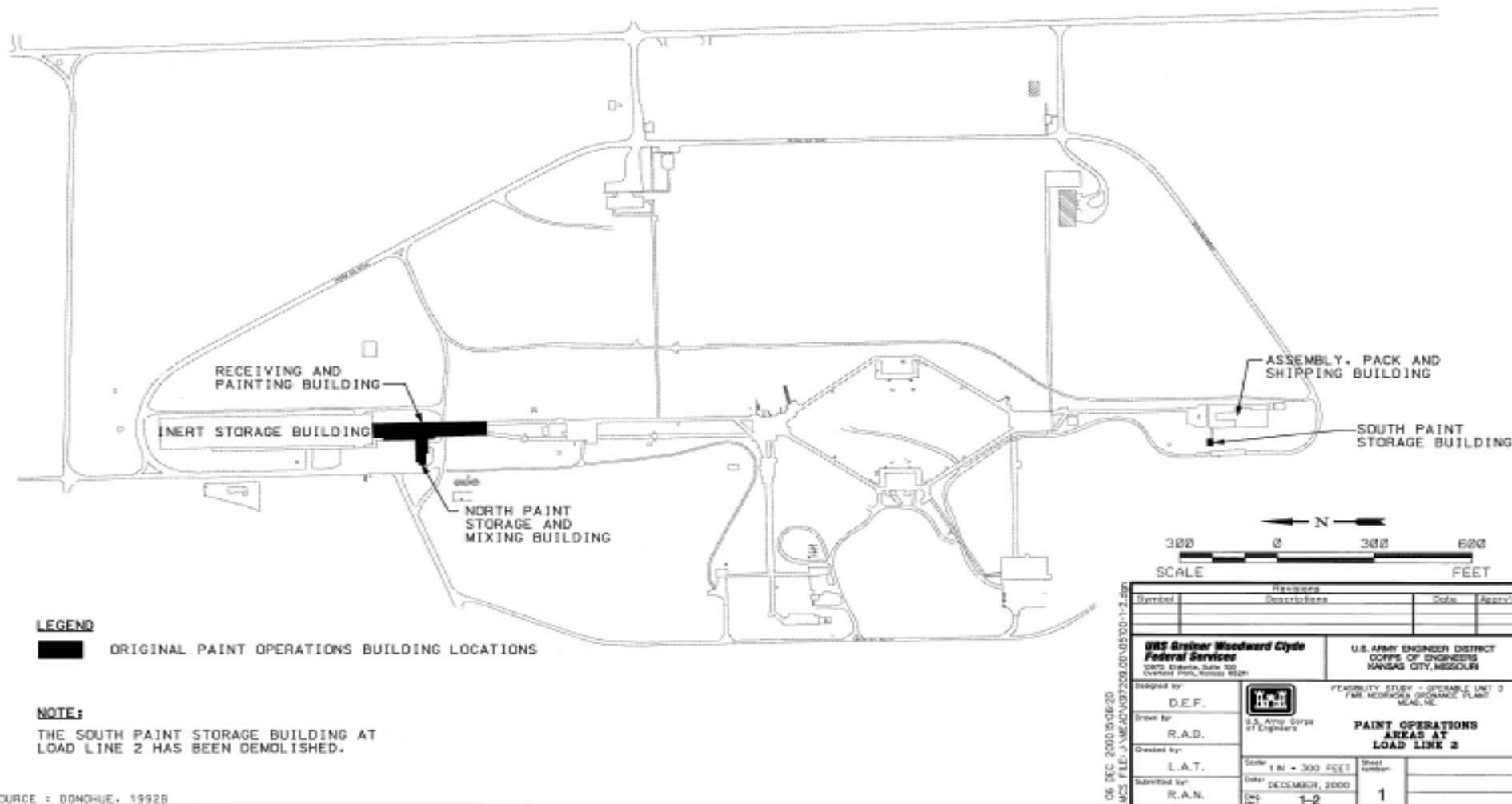
Removal Action Alternatives

- Alternative 1 – No Action
- Alternative 2 – Capping
- Alternative 3 (*RECOMMENDED*)
Excavation and Off-Site Disposal
- Alternative 4 –
 - Capping at LLs 2 & 4
 - Excavation & Off-Site Disposal at the Potential Landfill Area

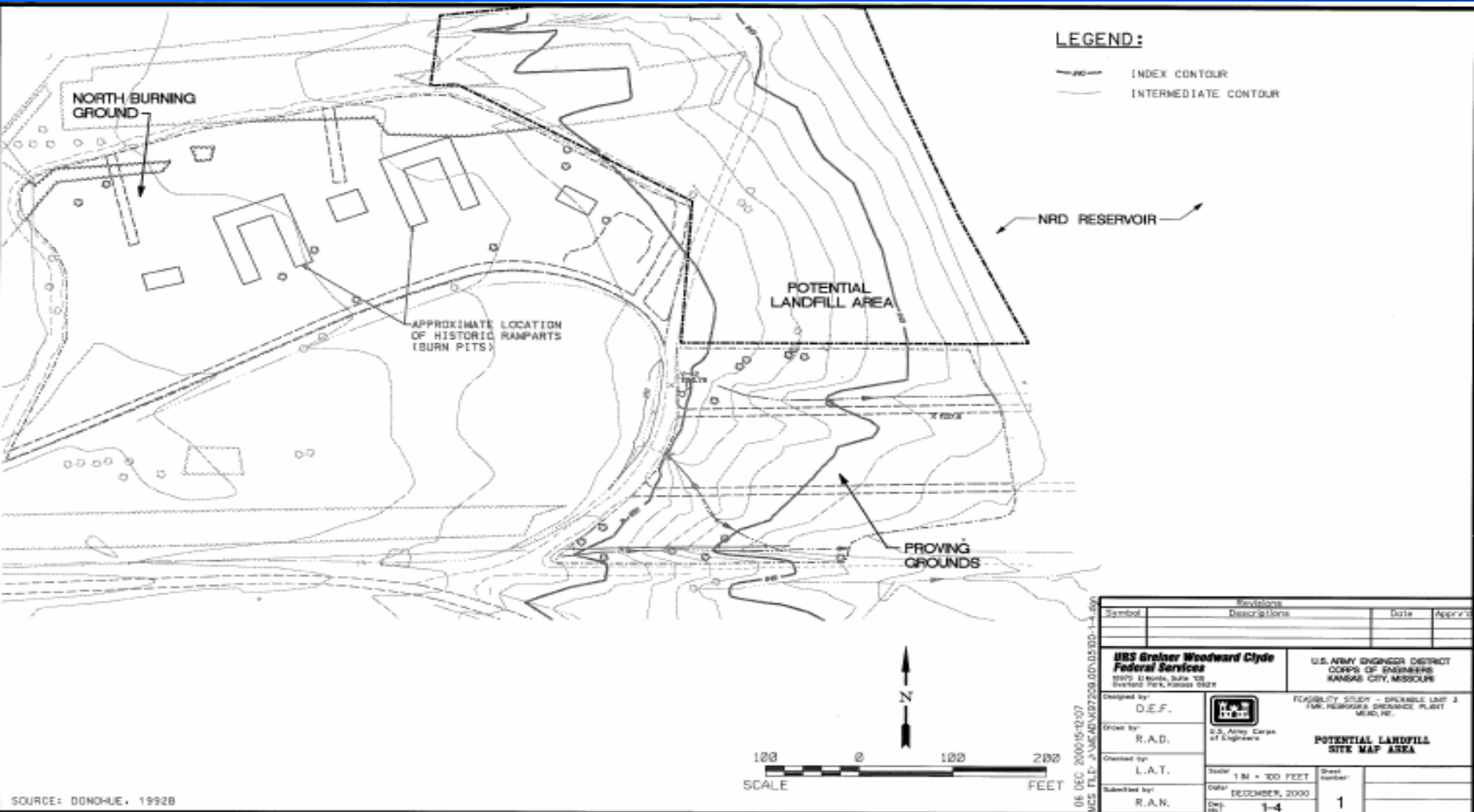
Cleanup Locations

- **LL 2 Paint Operations Area (300 cu yd)**
- **LL 4 Paint Operations Area (100 cu yd)**
- **Potential Landfill (600 cu yd)**

Load Lines



Potential Landfill Area



ORDNANCE AND EXPLOSIVES RECURRING REVIEW

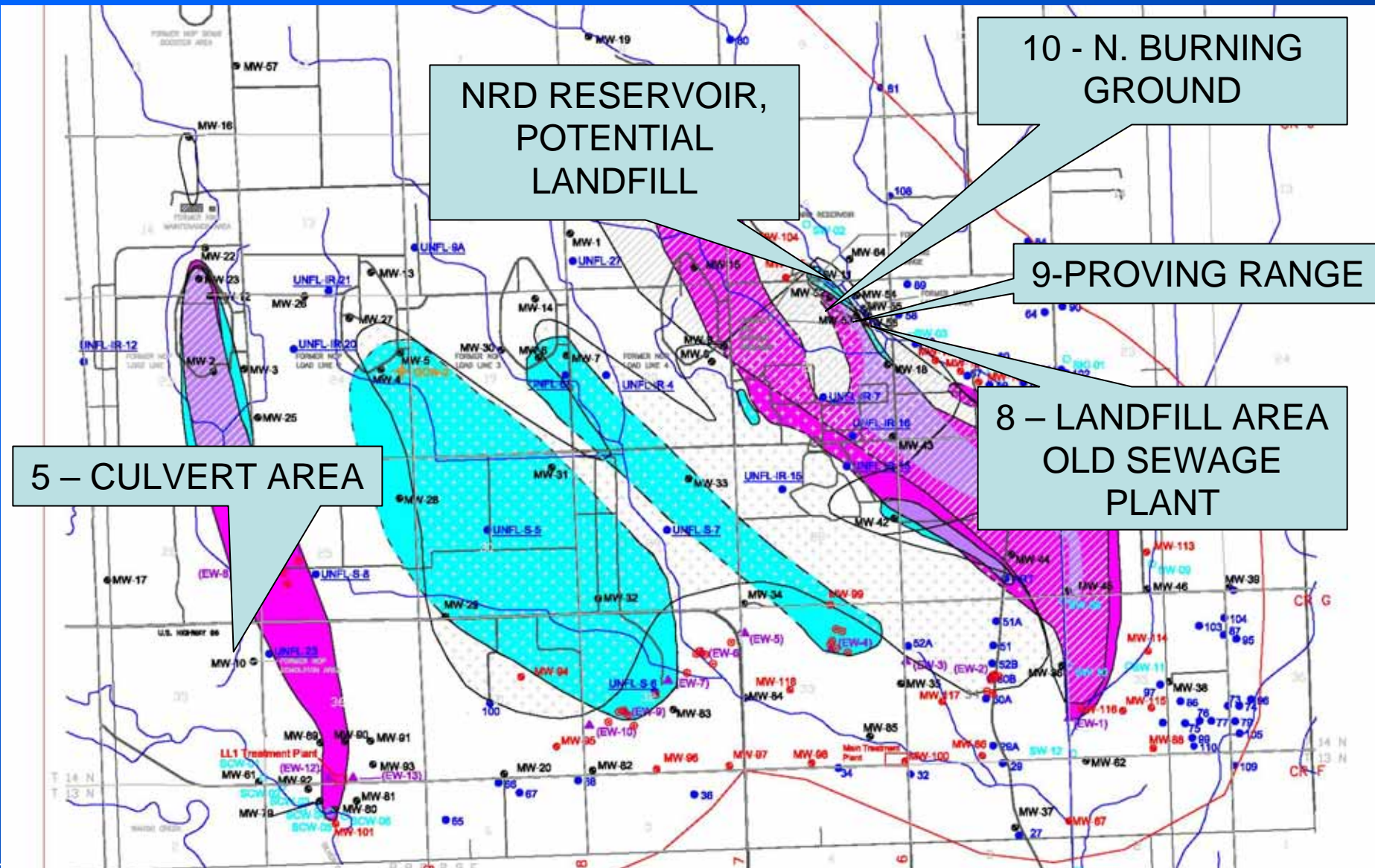
OE Recurring Review

- **US Army Corps of Engineers Requirement**
- **Purpose: Determine if OE response actions continue to minimize explosives safety risks and continue to be protective of human health, safety, and the environment**
- **Process:**
 - Review existing documentation
 - Identify and review new information since last Recurring Review and current site conditions
 - Conduct public availability session (date TBD)
 - Site visit
 - Complete Recurring Review Report

OE Recurring Review

- **OE Removal Actions completed 1996-1999**
- **1st OE Recurring Review October 2001**
- **2006 OE Recurring Review will be final by July 2007**
- **OE Recurring Review will cover 5 areas:**
 - **Culvert Area (Site 5)**
 - **Landfill Area, Former Wastewater Treatment Plant (Site 8)**
 - **Proving Range (Site 9)**
 - **North Burning Ground (Site 10)**
 - **NRD Reservoir and Potential Landfill Area**

Areas of Interest



Next RAB Meeting

- **Future RAB Topics**
 - What topics are of interest to the community?
 - Tell us what you would like us to present at future RAB meetings
- **Next RAB Meeting: April 2007. Specific date TBD.**



Please Contact Us:

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